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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,347	11/12/2003	Chen Qian Zhao	A01464	6038

21898 7590 09/22/2006

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EXAMINER

SASTRI, SATYA B

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5

Office Action Summary	Application No. 10/706,347	Applicant(s) ZHAO, CHEN QIAN	
	Examiner Satya B. Sastri	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-22 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-22 is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1,2 and 6-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/7/06, 9/12/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to application filed on July 5, 2006. Claims *1, 2, 6-22* are now pending in the application.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 5, 2006 has been entered.
3. It is noted that claim 8 has been indicated as canceled in the remarks but is indicated as withdrawn in the amendment.
4. In view of the amendment, rejection of *claims 1, 2, 6, 7, 9-14* under 35 U.S.C. 102(b) as being anticipated by Hirsch et al. (EP 0653469 A2, DERWENT ABSTRACT) and rejection of *claims 15-22* under 35 U.S.C. 102(b) as being anticipated by Overbeek et al. (US 5,962,571) are both withdrawn. However, rejection of *claims 1, 2, 6, 7, 9* under 35 U.S.C. 102(b) as being anticipated by Araki et al. (US 4,144,155) is sustained.

Previously Cited Statutes

Art Unit: 1713

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. *Claims 1, 2, 6, 7, 9* are rejected under 35 U.S.C. 102(b) as anticipated by Iovine et al. (US 4,948,822) or JP10158617 or JP 08283678A or JP 08333550A.

Iovine et al. disclose laminating adhesives that incorporate polymer emulsions prepared by a core-shell polymerization (abstract). The core of the polymer constitutes (a) 60-98% by wt. of an alkyl or hydroxyalkyl ester of (meth)acrylic acid, (b) 0-38% by wt. of an optional comonomer and (c) 2-12% by wt. of functional monomer selected from glycidyl methacrylate, acrylic acid, methacrylic acid or amine-containing copolymerizable comonomer. The polymeric shell comprise (a) 70-98% by wt. of alkyl or hydroxyalkyl ester of (meth)acrylic acid, (b) 0-28% by wt. of an optional comonomer and (c) 2-12% by wt. of functional monomer selected from glycidyl methacrylate, acrylic acid, methacrylic acid or amine-containing copolymerizable comonomer, provided that the functional monomer employed in the core is reactive with the functional comonomer in the shell. Thus, the adhesive composition which is based on an acrylic polymer comprising a core and a shell include functional comonomers to react with one another and thereby initiate hardening, ionic bonding or crosslinking of the polymer (column 3, lines 3-33). Disclosed functional monomers include acrylic acid, methacrylic acid, glycidyl methacrylate etc. When glycidyl methacrylate is employed in the core, either an amine-containing comonomer or (meth)acrylic acid can be used in the shell(column 4, lines 21-30). The emulsion generally contains 40-65% solids and may be further diluted prior to use to 15-45% solids. Thus, the instant claims are anticipated by the prior art.

Art Unit: 1713

JP10158617 concerns a pressure sensitive adhesive composition comprising a water-based emulsion prepared by the emulsion polymerization of an alkyl (meth)acrylate, a carboxyl monomer and an epoxy monomer (abstract, claim 1). Additionally, working example discloses an aqueous composition comprising a polymer derived from acrylic acid, butyl acrylate and glycidyl methacrylate. Thus, the instant claims are anticipated by the prior art.

JP 08283678A discloses an emulsion type acrylic adhesive obtained by copolymerizing ethylenically unsaturated carboxylic acid monomers, epoxy-containing monomers, tert. amine-containing monomers and ester-containing monomers (abstract, claim 1, example 1). Thus, the instant claims are anticipated by the prior art.

JP 08333550A discloses a tacky adhesive obtained by emulsion polymerization of (a) carboxylic acid containing rosin ester monomer, (b) PEG (meth)acrylate, (c) alkyl methacrylate, (d) carboxylic acid-containing monomer and (e) a comonomer. Disclosed species for (e) explicitly includes glycidyl (meth)acrylate. Thus, the instant claims are anticipated by the prior art.

Allowable Subject Matter

7. ***Claims 10-22*** are allowed.

Instant claims recite adhesive compositions comprising an acrylic polymer containing as polymerized units, monomer or a macromer comprising a carboxyl functionality and a carboxyl reactive monomer selected from the group consisting of acetoacetoxyethyl acrylate, acetoacetoxyethyl methacrylate and mixtures thereof and compositions comprising an acrylic polymer containing as polymerized units, macromer comprising a carboxyl functionality and a

Art Unit: 1713

carboxyl reactive monomer selected from the group consisting of glycidyl acrylate, glycidyl methacrylate and mixtures thereof. Prior art of record does not teach or suggest such compositions.

Response to Arguments

With regard to Araki et al. as prior art, it is noted that the composition comprises copolymers that contain acid groups and glycidyl groups from polymerization of (meth)acrylic acid and glycidyl methacrylate (column 4, lines 8-14, column 3, lines 55-57). Furthermore, the prior art discloses reactions that result in crosslinking when heated to temperatures above 140°C or at room temperature in the presence of a crosslinking agent (column 3, lines 19-26, column 5, lines 44-47). Thus, addition of a crosslinking agent is one embodiment of the invention. For instance, properties as disclosed in the working examples A and D in Table 2 do not include a crosslinking agent and demonstrate comparable properties with A' and D' that include hexamethylene diamine (example 7). Thus, crosslinking agent is not mandatory in these emulsions.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272 1112.

Art Unit: 1713

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272 1114.

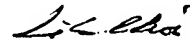
The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

September 15, 2006



LING-SUI CHOI
PRIMARY EXAMINER